Extron Electronics
INTERFACING, SWITCHING AND CONTROL

IMPORTANT:
Refer to www.extron.com for the complete user guide and installation instructions before connecting the product to the power source.

XTP T FB 202 • Setup Guide

This guide provides instructions for an experienced installer to install and connect the Extron XTP T FB 202 into an Ackermann GB3 (OBO-Bettermann), MK Electric CableLink Plus Modular, MK Electric CableLink Plus Single Pan, Electraplan, or PUK floor box.

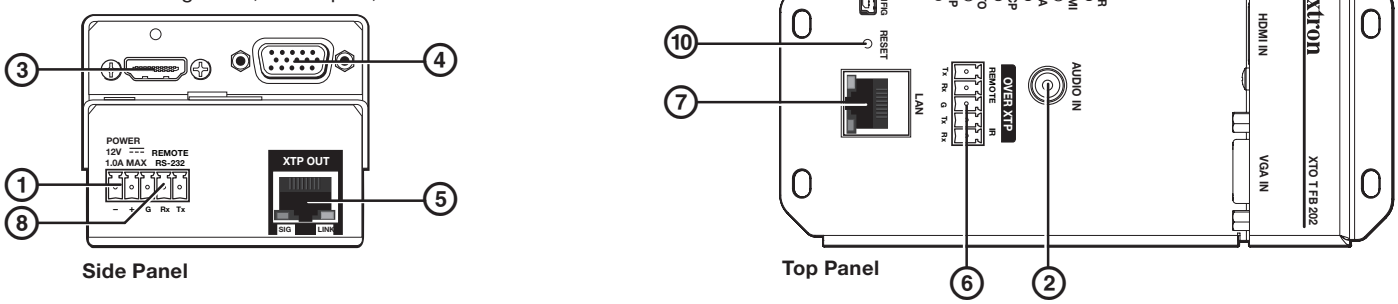


Figure 1. XTP T FB 202 Side and Top Panels

Input and Power Connections	Throughput and Control Connections	Control Connections and LEDs
① DC power connector	⑤ XTP output connector and LED indicators	⑧ Remote RS-232 connector
② Analog audio input connector	⑥ RS-232/IR Over XTP connector	⑨ USB configuration connector
③ HDMI input connector	⑦ LAN connector	⑩ Reset button
④ Analog 15-pin HD connector		⑪ LED indicators

Installation

Planning

CAUTION: **Risk of personal injury.** Failure to check these items may result in personal injury.

ATTENTION: Failure to check the items listed below may result in property damage.

☐ Check that the installation meets the building, electrical, and safety codes.

Mounting and Cabling

Step 1 — Preparing the floor box

a. Install the floor box as directed by the manufacturer.

NOTE: Run all required cables and secure them with cable clamps.

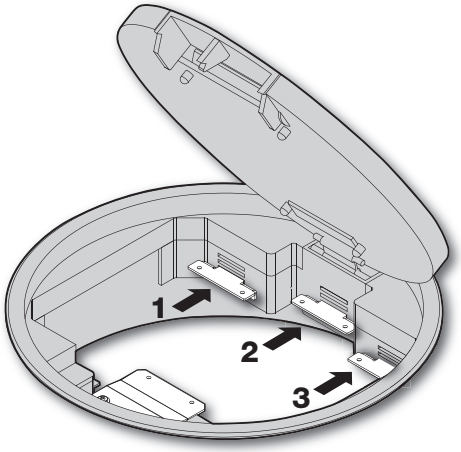
b. Turn off or disconnect all equipment power sources.

Step 2 — Installing adapters

a. Determine a position in the floor box to mount the XTP T FB 202 (see the image to the right).

b. Identify the applicable adapter plates for the floor box (see the table below).

c. Install adapter plates to the same pair of mounting slots (see the table below for slot recommendations) for the same position in the floor box. Slide the top flange into the mounting slot and rotate the adapter plate down so the bottom flange rests against the wall of the floor box.



OBO Bettermann
GESR7 Floorbox Assembly

Floor Box	Adapter Plates	Positions	Highest Mounting Slot	Additional Notes
Ackermann GB3 (OBO Bettermann)	995241 (2) 995241 (2) and 995242 (1)	1 and 3 2	3rd from top	For position 2, use the provided screws to attach the 995242 adapter plate to either 995241 adapter plate.
MK Electric CableLink Plus Single Pan	995243 (2)	1 and 3	N/A	Do not use position 2. Use mounting screws to secure the adapter plates to the floor box (see figure 4).
MK Electric CableLink Plus Modular	995244 (2)	1, 2, and 3	3rd from top	
Electraplan	995300 (2)	1, 2, and 3	3rd from top	
PUK	995300 (2)	1, 2, and 3	3rd from top	

Step 3 — Connecting side panel connectors under the adapters

a. Connect a twisted pair cable between the XTP connector (see ⑤ above) of the XTP T FB 202 to an XTP receiver or XTP matrix switcher (see **Twisted Pair Recommendations for XTP Communication** on page 4).

> **ATTENTION:** Do not connect this connector to a computer data or telecommunications network.

Signal LED indicator — Lights when the device is transmitting a video signal or a test pattern.

Link LED indicator — Lights when a valid link between an XTP input and output is established.

b. For serial RS-232 control, connect a host device or control system to the 3.5 mm, 3-pole captive screw connector (see ⑧ on page 1). Wire the connector as show in figure 2.

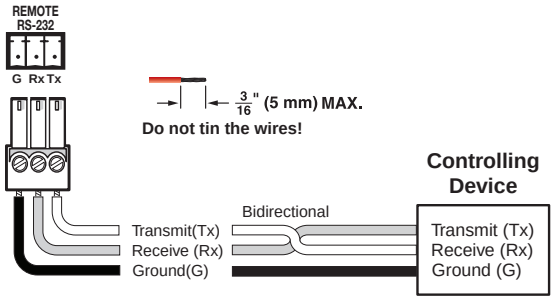


Figure 2. Remote RS-232 Wiring

c. Power the XTP T FB 202 in one of the following methods:

- Connect the provided external power supply to the 2-pole captive screw connector for local 12 V power (see ① on page 1).
- Connect an XTP Power Injector to the XTP connection between the XTP T FB 202 and a locally powered XTP receiver or XTP matrix switcher.
- Connect the XTP T FB 202 to an XTP matrix switcher and enable the remote power feature on the XTP matrix switcher.

Step 4 — Mounting

a. Place the XTP T FB 202 in the desired position in the floor box so that the side panel connectors face towards the opening of the floor box.

> **ATTENTION:** Ensure there is enough space between the top panel connectors and the lid of the floor box so the lid fully closes.

b. Using the provided self-threading screws, secure the XTP T FB 202 to the adapter plates (see figures 3 through 6).

Ackermann GB3 (OBO Bettermann) floor box

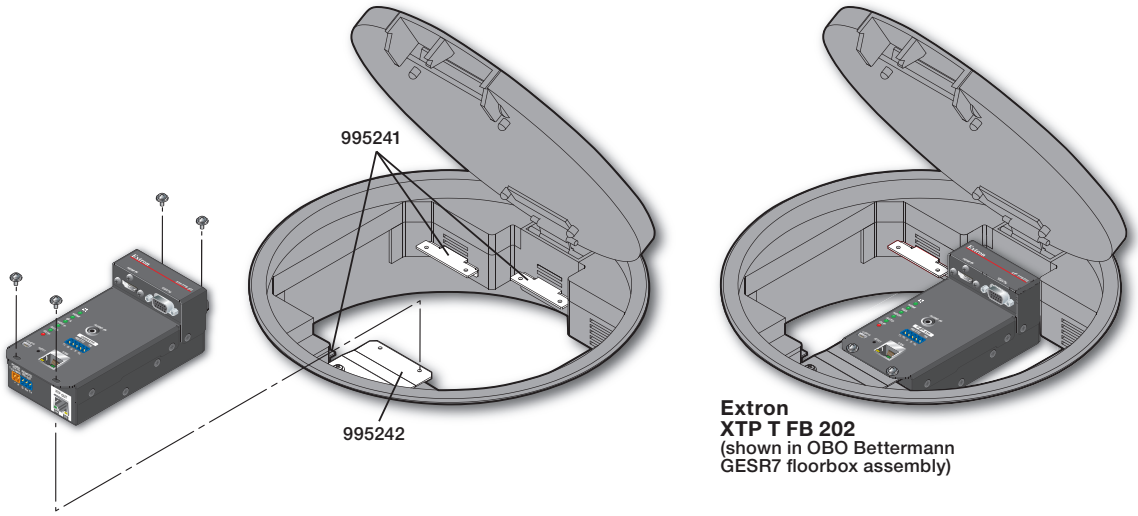


Figure 3. XTP T FB 202 in an Ackermann GB3 (OBO Bettermann) Floor Box

> **ATTENTION:** For position 2, install adapter plate 995242 to one of the other adapter plates.

MK Electric CableLink Plus Single Pan floor box

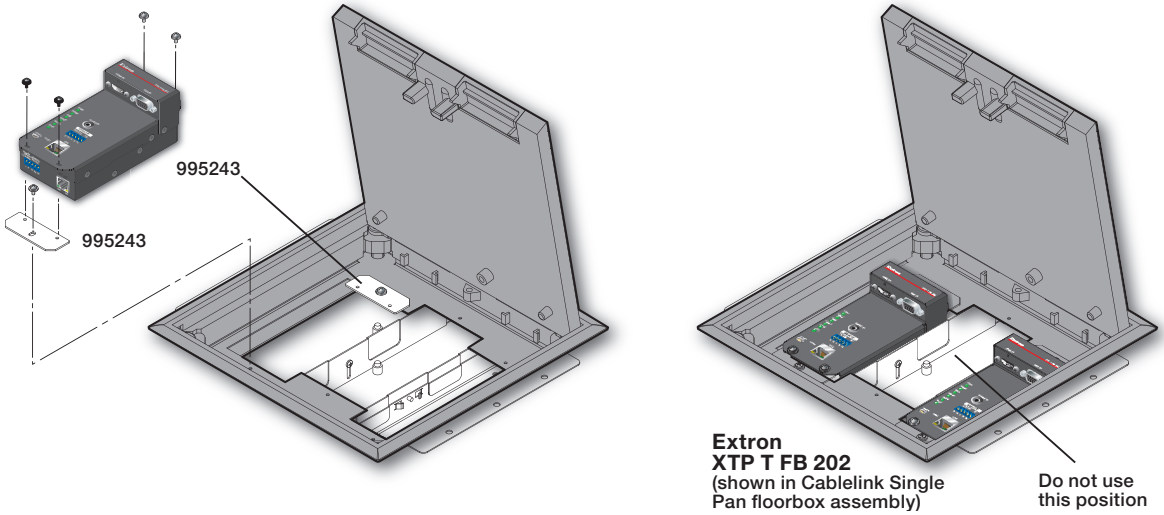


Figure 4. XTP T FB 202 in an MK Electric CableLink Plus Single Pan Floor Box

MK Electric CableLink Plus Modular floor box

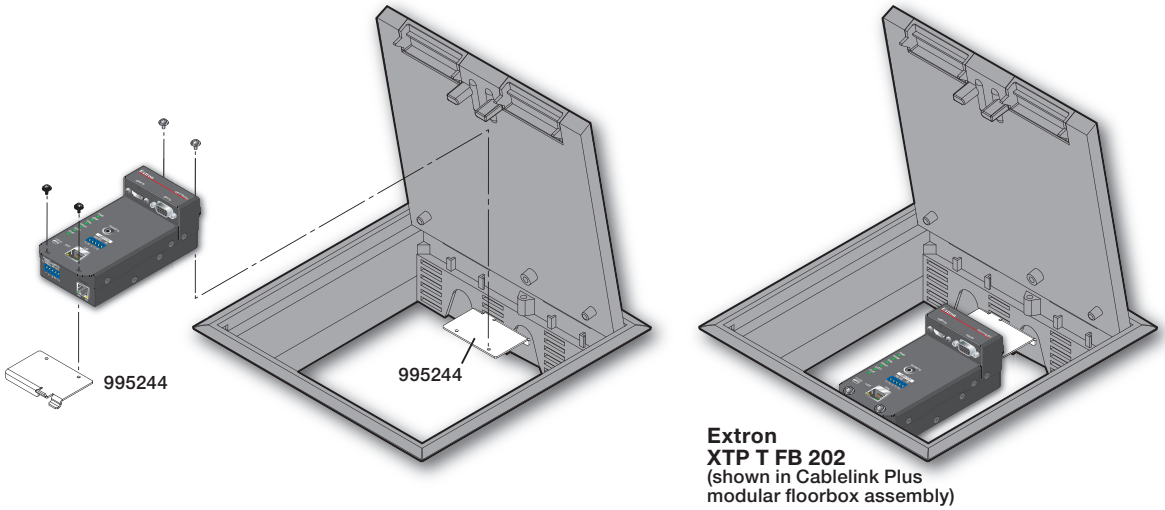


Figure 5. XTP T FB 202 in an MK Electric CableLink Plus Modular Floor Box

Electraplan or PUK floor box

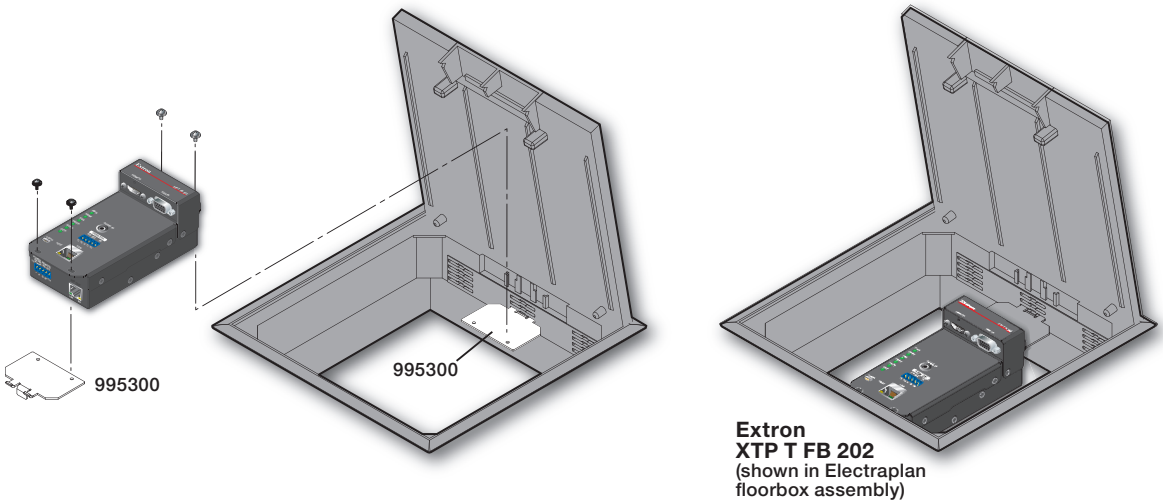


Figure 6. XTP T FB 202 in an Electraplan (or PUK) Floor Box

Step 5 — Connecting Inputs

a. Connect an unbalanced analog audio input source to the 3.5 mm TRS jack. Both video inputs can share this audio input. HDMI embedded audio is normally given priority (see ② on page 1).

b. Connect an analog RGB video source to the female 15-pin HD VGA connector (see ④ on page 1).

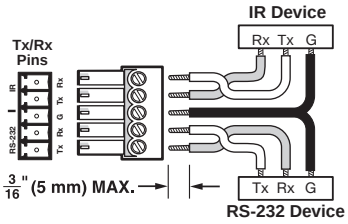
c. Connect a digital video source to the female HDMI connector (see ③ on page 1). They can accept HDMI, DVI (with an appropriate adapter), or DIsplayPort video signals.

> **NOTE:** Video input from a DisplayPort source must be a dual mode DisplayPort source.

Step 6 — Connecting Throughput Devices

a. To pass bidirectional serial command signals between XTP-compatible devices, connect a control device to the three leftmost poles (Tx, Rx, and G) of the 5-pole captive screw connector (see ⑥ on page 1). To transmit and receive IR signals, connect a control device to the three right most poles (G, Tx, and Rx).

> **NOTE:** RS-232 and IR data can be transmitted simultaneously and share the ground pole (G).



b. Connect a host device or control LAN or WAN to the LAN RJ-45 connector for pass-through 10/100Base-T Ethernet communication (see ⑦ on page 1). This is an Ethernet pass-through port with LEDs to indicate link and activity status.

Step 7 — Connecting a Control Device

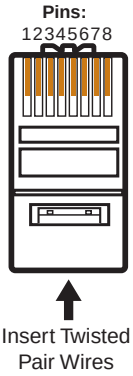
Connect a host device, such as a computer, to the female mini-USB B port to configure the device or update firmware (see ⑨ on page 1).

Twisted Pair Recommendations for XTP Communication

The XTP T FB 202 is compatible with CAT 5e, 6, 6a, and 7 shielded twisted pair (F/UTP, SF/UTP, and S/FTP) and unshielded twisted pair (U/UTP) cable. Extron recommends using the following practices to achieve full transmission distances up to 330 feet (100m) and reduce transmission errors.

- Use Extron XTP DTP 24 SF/UTP cable for the best performance. If not using XTP DTP 24 cable, at a minimum, Extron recommends 24 AWG, solid conductor, STP cable with a minimum bandwidth of 400 MHz.
- Terminate cables with shielded connectors to the TIA/EIA-T568B standard.
- Limit the use of more than two pass-through points, which may include patch points, punch down connectors, couplers, and power injectors. If these pass-through points are required, use CAT 6 or 6a shielded couplers and punch down connectors.

> **NOTE:** When using CAT 5e or CAT 6 cable in bundles or conduits, consider the following:
>
> - Do not exceed 40% fill capacity in conduits.
> - Do not comb the cable for the first 20 m, where cables are straightened, aligned, and secured in tight bundles.
> - Loosely place cables and limit the use of tie wraps or hook and loop fasteners.
> - Separate twisted pair cables from AC power cables.



TIA/EIA-T568B	
Pin	**Wire Color**
1	White-orange
2	Orange
3	White-green
4	Blue
5	White-blue
6	Green
7	White-brown
8	Brown

Operation

After all connected devices are connected and powered on, the system is fully operational. The XTP T FB 202 can be configured and controlled through the Extron XTP System Configuration Software or SIS™ commands (see the *XTP T FB 202 User Guide* available on the Extron website, **www.extron.com**).

Indicators

Power LED indicator — Lights when power is applied.

HDMI LED indicator — Lights when the HDMI input signal is detected.

VGA LED indicator — Lights when the VGA input signal is detected.

HDCP LED indicator — Lights when the HDMI input signal is encrypted.

Auto switch LED indicator — Lights when device is in auto switch mode.

Audio Clipping LED indicator — Lights when the analog audio input signal remains above -3 dBFS. It remains lit for 200 ms after the signal falls below -3 dBFS.

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